

**HANDBOOK OF LOCAL ANESTHESIA,  
5TH EDITION**

*Stanley F. Malamed, DDS*

Elsevier Mosby, 2004

**LOCAL ANESTHESIA ADMINISTRATION DVD**

*Stanley F. Malamed, DDS*

2 disc DVD program, Elsevier Mosby, 2004

**HANDBOOK OF NITROUS OXIDE AND  
OXYGEN SEDATION, 2ND EDITION**

*Morris S. Clark, DDS, FACD, and Ann Brunick,  
RDH, MS*

Mosby, 2003

With the advent of the miracles of the digital age, newer editions of old favorites seem to appear almost monthly, and many of them are just higher priced versions of the original with a few expanded chapters but add little real value for the reader. We purchase them just to “keep up.” The following reviews of 2 new editions prove that there are exceptions to every rule, and much can be gained by the evolution of a text by authors who are dedicated in taking their contributions to the next level. This passion to update, refine, and rediscover is a credit to the authors and a gift to the student in all of us.

I refuse to believe that I am growing older. Perhaps that is why I cannot believe there is already a fifth edition of *Handbook of Local Anesthesia*, but there is. Stanley Malamed’s newest revision of his classic and reference text is not merely a reissue of age-worn materials but, in my mind, is the best iteration of the text since the first edition was released over 25 years ago. So many of us have been weaned on this text over the years that one anticipates the comfortable and familiar to continue, but the addition of color photographs and diagrams makes this edition a true pleasure to behold and a worthwhile purchase even to those with earlier editions. I do not think I have ever encountered such a sea of change in a text directly attributed to the introduction of sharp, color, clinical photographs; easy-to-read colored tables; and the effect that the overall integration of color has accomplished on just about every page. The quality of the paper adds a heft and sheen to the pages and gives one the feeling of opening something of significance, which, in fact, the book is.

As one would expect, many changes have occurred over the past quarter century, and the text has kept pace with complete reviews of new local anesthetics, refinement and evolution of anesthetic techniques, and the introduction of local anesthetic delivery systems. The one constant has been that anatomy is still anatomy; if you put the drug in the right place, the drug will generally work. Dr Malamed has refined his approach in discussing the various local anesthetic techniques and “talks” the reader through the nuances of each block. The addition of a new chapter on legal considerations, by Dr Dan Orr II, relates local anesthetic practice to realities of the medicolegal environment that permeate all aspects of medical and dental practice.

This is not a text you might like to own, but you must possess it to have the basics and state-of-the-art in local anesthesia in dentistry at your fingertips. The term *handbook* has always been a bit misleading when it came to describing the content and intent of the premier reference text in dental local anesthesia. It is a handbook, but it is also so much more. Are you seeking to learn? Do you need a refresher? Are you unsure about a term? Are you attempting a new approach? Look it up in Malamed!

A companion DVD, *Local Anesthesia Administration DVD*, reviews both local anesthetic technique and animation that clarifies basic anatomy and pharmacology and is a valuable addition that complements the text. The production is slick, professional, and—though not my taste in music—upbeat. At best, it is a difficult task to describe clinical technique; a picture, and especially a video, is worth more than a thousand words. The basics of maxillary and mandibular injections are clearly demonstrated with great clarity and focus.

My only criticism is that the practicing dentist needs more than a basic review, and troubleshooting the different approaches with various anatomical variations would be helpful. It is difficult to be all things to all people and to span audiences from dental students to dental hygienists and from specialty graduate students to experienced practitioners. It is a daunting and formidable undertaking. Personally, I liked the book better than the movie for its depth and completeness, but, taken together, they are the reference in dental local anesthesia and will continue to set the standard.

The second edition of *Handbook of Nitrous Oxide and Oxygen Sedation*, by Morris Clark and Ann Brunick, is a handbook in the classic sense of the word. Written in an outline rather than narrative format, it attempts to put just about every aspect of nitrous oxide

and oxygen sedation into the reader's hands in a short, concise overview. The first edition filled an important void in dentistry to completely concentrate on just nitrous oxide and oxygen sedation and appealed to dental educators and students who were seeking a single reference text. This book continues to reinforce the legacy of Horace Wells and is the bridge between the "relative analgesia" of Harry Langa and the modern era.

The content has been updated in this second edition, and additions include new chapters on pediatrics, an interesting section on frequently asked questions, and new information that is peppered throughout the text. Additional photographs have been added to the sections on equipment, and special attention is paid to biohazards in an in-depth review. Appendices now include a template for an Informed Consent Form and contain other additional guidelines of interest to the practitioner. It is a small, sweet book that can be devoured rapidly as a fine piece of chocolate with no bitter aftertaste.

Mort Rosenberg, DMD  
Tufts University Schools of Medicine and  
Dental Medicine  
Boston, Massachusetts

### **ACID-BASE, FLUIDS, AND ELECTROLYTES MADE RIDICULOUSLY SIMPLE**

*R. A. Preston*

MedMaster Inc, 1998

This 150-page softcover book is a very easy-to-read synopsis of a rather difficult subject. Although it certainly does simplify the subject, "made ridiculously easy" may be a bit of an understatement. This book provides a straightforward and systematic approach to acid-base and electrolyte problems. It is intended for the current practitioner, resident, and anyone involved in intravenous fluid therapy.

The text involves an essential discussion of the key pathophysiology involved in each disorder and the important elements involved in the diagnosis and treatment of each disorder. It avoids excessive discussion of scientific detail, instead focusing on the overall approach to handling each case.

The book is divided into 10 chapters followed by an index. These chapters discuss abnormalities of the electrolytes sodium and potassium, metabolic and respiratory acidosis and alkalosis, and finally mixed acid-base disorders. The final chapter involves case examples. Indeed, more than half of this excellent book involves clinical examples. Each clinical example involves a case presentation followed by a detailed approach to diagnosis

and treatment. These augment the initial chapter, which discusses the basics, with particular emphasis on renal physiology, and the chapter on "IV Solutions and IV Orders."

Each case entails the diagnosis of the acid-base disorder involving essentially 3 steps, the approach to the individual electrolytes, and finally management considerations. The amount of repetition from case to case, as well as in the discussion of each case, is just right in highlighting the important points.

Each chapter also highlights the important formulae involved in both diagnosis and treatment. Many tables (called "figures") very nicely summarize the discussions found in the text and help in the differential diagnosis of each disorder. Many of these formulae are summarized on the inside cover of this book, under the heading "Normal Values."

This book neatly accomplishes its goal with its systematic approach to a very complicated (before reading this book) subject. Its step-by-step methods are based on firm scientific principles, and thus they are quite easy to understand and to remember. This is an excellent addition to the library of any practitioner treating patients both in the hospital and on an outpatient basis.

Dr Earle R. Young, BSc, DDS, BScD, MSc, FADSA  
Associate Professor  
Department of Anesthesia, Faculty of Dentistry  
University of Toronto and  
The Wellesley Central Hospital  
Toronto, Ontario, Canada

### **CRISES MANAGEMENT IN ANESTHESIOLOGY**

*D. M. Gaba, K. J. Fish, and S. K. Howard*

Churchill Livingston Inc, 1994

Every now and then, one comes across a book that tackles a particular subject in a rather special way. This is what I found with this 300-page softcover book. It is unique because it covers the basic principles of how anyone involved in the practice of anesthesia should approach one of the most challenging and important tasks: managing critical events.

This book is written for everyone who administers anesthesia, from the experienced practitioner to those who are beginning their training. The first section, "Basic Principles of Crisis Management in Anesthesiology," is particularly distinct because it focuses on the mind of the anesthesia provider and analyzes his or her expertise in terms of its component parts. The 2 chapters in this section are very psychology-oriented and discuss the theories of dynamic decision-making and the principles

of anesthesia crisis resource management. The material is similar to the programs that are part of airline pilot training.

The second section, "The Catalog of Critical Events in Anesthesiology," outlines 83 events based primarily but not exclusively on various body systems and specific types of surgery. These include everything from hypoxemia, hypotension, myocardial infarction, the difficult airway, and local anesthetic toxicity to various equipment-related events. Each "event" is described under the headings of "Definition," "Etiology," "Typical Situations," "Prevention," "Manifestations," "Similar Events," "Management," "Complications," and "Suggested Readings."

The authors assume that the reader has a sound knowledge base and adequate technical skills. The book is not meant to be either a reference text on anesthesia or a "cookbook." Instead, "The Catalog of Critical Events" is a guide only. The "Management" section is purposely not in the form of a decision tree or algorithm, rather, the management guides are written more as a hierarchical list of what to check or to do in roughly the same order that an experienced practitioner would do them. Although comprehensive, this book makes no claim to be exhaustive. It focuses on the anesthesia provider's mind, trying to help him or her optimize his or her own performance. The catalog presents events in a uniform, concise fashion and strives to improve the recognition of and response to a crisis. It is very easy to read and is truly a source of education that no one but the most thrill-seeking anesthetist wants to experience but that every anesthesia provider will experience. This innovative book effectively captures the essence of what should become instinctive. What it describes should be required reading for anyone who administers anesthesia.

Dr Earle R. Young, BSc, DDS, BScD, MSc, FADSA  
Associate Professor  
Department of Anesthesia, Faculty of Dentistry  
University of Toronto and  
The Wellesley Central Hospital  
Toronto, Ontario, Canada

## ANAESTHESIA FOR THE HIGH RISK PATIENT

Ian McConachie

Greenwich Medical Media, 2002

This 265-page softcover book has been compiled from the effort of some 22 contributors. It aims to provide practical information on the management of high-risk patients by quoting numerous studies and providing suf-

ficient background information to enable an understanding of the principles and rationale behind anesthetic and perioperative management. When I first picked this book up, I expected it to be a "cookbook" of techniques. It is not. This excellent text relies heavily on clinical and scientific studies, and where these studies have weakness the authors readily point them out.

This text is not a substitute for major anesthetic texts but concentrates on principles of management of challenging situations. A great deal of emphasis is placed on cardiovascular risk and cardiac disease in general. Many studies are referenced, and one can see how the principles of patient management have actually evolved as the designs of these studies have improved.

This book is divided into 17 chapters. These are referenced in the body of the text, and each one concludes with an impressive section entitled "Further Reading" and then "References." The book relies heavily on the terms *reserve*, *functional capacity*, *exercise tolerance*, and *optimization*, as well as on implications for the type and site of surgery and its duration.

The format is clearly designed to provide easy access to information presented in a concise manner. The actual styles of the chapters vary. Some relate more to basic physiology, medical principles, and pharmacology, whereas others are more practical, discussing the principles of anesthetic techniques for high-risk patients. However, all styles have a firm scientific basis.

Almost every body system is considered in this text. The chapters devoted primarily to cardiac risk are especially impressive. Solidly based on scientific and clinical trials, they cover topics such as epidemiology, risk stratification, invasive and noninvasive preoperative testing (especially as these affect outcome), the importance of functional capacity (expressed in terms of metabolic equivalents), concurrent diabetes, and specific cardiovascular lesions, to name only a few. For example, in both animal and human models a coronary stenosis will start to produce flow limitations at rest only when the sectional diameter is reduced by 85–90%. However, under conditions of maximal flow (exercise or pharmacologically induced vasodilatation), stenosis with as little as 45% reduction in cross-sectional diameter will cause flow limitation manifesting as effort induced angina. Thus, the sensitivity of diagnostic physiological tests is markedly improved with increased flow enabling the detection of lesser stenosis.

Other chapters cover topics such as respiratory risk, analgesia for the high-risk patient, local anesthetic techniques, the elderly patient, optimization, gastrointestinal considerations, renal considerations, anemia, the role of the cardiology consult, and the actual meaning of *risk*, again to name only a few.

Similarly, considerations with respect to a couple of

commonly used outpatient drugs—ketamine and nitrous oxide—are emphasized. For example, ketamine may increase oxygen extraction by tissues, thus helping prevent lactic acidosis, especially in the septic model. In addition, the traditional division of  $\alpha$ ,  $\beta$ , and dopamine receptor agonist properties on the basis of micrograms per kilogram per minute has now shown that the vasoconstrictor action occurs at much lower doses than what were originally thought.

The excellent chapter on the elderly patient goes system-by-system into the changes induced by the aging process. It further emphasizes those factors of importance in preoperative assessment; preparation; anesthetic techniques; and, of course, the principles of optimization.

The only so-called flaw I found in this text is the occasional misspelling of *arrhythmia*. Despite these minor nuances, this book could easily be classified as a must-have text in the reference library of any healthcare professional, especially those providing anesthesia and sedation services.

Dr Earle R. Young, BSc, DDS, BScD, MSc, FADSA  
Associate Professor  
Department of Anesthesia, Faculty of Dentistry  
University of Toronto and  
The Wellesley Central Hospital  
Toronto, Ontario, Canada

## MANAGING PAIN—THE CANADIAN HEALTHCARE PROFESSIONAL'S REFERENCE, 2ND EDITION

Roman D. Jovey, ed  
Healthcare and Financial Publishing, 2002

This 220-page softcover book is meant to serve as a “manual” that focuses on the broad spectrum of pain management. It is divided into 17 chapters, 5 appendices, and 1 index and is referenced in the body of the text by up-to-date references, with each chapter followed by a section titled “Further Reading.”

Clearly, the treatment of pain is a fundamental goal of all healthcare fields. Healthcare professionals have a serious ethical and legal obligation to offer adequate pain relief to all patients who require it. Intentionally leaving a patient in pain has been described in the preface as “a break of fundamental human rights” and as “medical negligence and unprofessional conduct.” This manual is designed to help the healthcare professionals to “know that they can, in good conscience, deliver the gift of pain relief treatment whenever it is needed.” This requires a shift in attitude, an update of basic knowl-

edge, and a structured approach to both assessment and treatment—the goals of this manual.

Pain is a multidimensional problem. Although this book focuses on optimizing the use of opioids, pain may require combining them with other forms of treatment such as polypharmacy, medical, rehabilitative, and psychosocial modalities. These topics are discussed in this manual's integrated approach that is not only evidence based but also experience based.

The initial chapters review pain pathways, pathophysiology, and general principles of pain management. Several areas of particular interest are genetic influences on pain sensitivity, chronic versus acute pain, chronic pain pathophysiology (peripheral sensitization, central sensitization, and neuronal plasticity), and the categories of pain (ie, nociceptive [somatic and visceral] and neuropathic pain).

Chapter 4 discusses a brief, practical overview of a range of nonpharmacological approaches to pain management: transcutaneous electrical nerve stimulation, acupuncture, thermal therapy, massage, exercise, and behavioral and cognitive therapy.

Chapter 5 discusses nonopioid analgesics. Several points of interest include the analgesic actions of acetaminophen involving the nitric oxide pathway; the use of anticonvulsants for shooting pain; paroxysmal neuropathic pain—the analgesic mechanism attributed to blockade of sodium channels, which decreases spontaneous depolarization (carbamazepine and phenytoin); and an increase in GABAergic transmission (valproic acid and clonazepam). Other agents that are discussed include the full gamut of nonsteroidal anti-inflammatories and tricyclic antidepressants (particularly indicated for constant, burning pain). Their mechanism in this regard appears to be attributed to sodium channel blockade as well as blockade of adenosine and N-methyl-D-aspartate (NMDA) receptors. The serotonin specific reuptake inhibitor, paroxetine, is also described as having some analgesic properties.

Chapter 6 describes the use of local anesthetics in the control of pain, including local, regional, or epidural injection, with emphasis on preemptive analgesia preventing central nervous system “wind up,” which could lead to a chronic pain state.

Several chapters address the use of opioid analgesics. In the pages on mechanisms of action, a new receptor is described, the morphine 6-glucuronide receptor, that appears separate from the more commonly known  $\mu$ ,  $\kappa$ , and  $\delta$  receptors. In addition, opioid analgesic tolerance has been described as involving secondary messenger systems in the dorsal horn of the spinal cord such as cholecystikinin and protein kinase C, which can change the state of the opioid receptor. Several chap-



ters cover the addiction that may happen when these opioid drugs are used in pain management.

Once again, repeated emphasis is placed on both pre-emptive analgesia and the rapid treatment of acute pain before the condition becomes chronic. Of particular interest are topics such as myofacial pain, fibromyalgia, cancer pain, postoperative pain, chronic pain in the elderly, trauma, and headache.

The final chapter is titled “Potential Future Analgesics” and briefly discusses cannabinoids, especially their analgesic and anti-inflammatory effects. They may augment the effects of opioids four- to fivefold perhaps by blocking NMDA-mediated pain by a blockade of the 2 cannabinoid receptors. Also, purines such as adenosine are discussed, as are neuronal nicotinic acetylcholine agonists, N-type calcium channel blockers, NMDA receptor antagonists (ketamine), and botulinum toxin—especially for temporomandibular disorders.

Emphasis is also placed on conscious sedation in the prevention and the alleviation of pain and how anxiety can lead to central nervous system wind-up. Many of the sedation modalities mentioned are familiar to the dental anesthesiologist, as are the monitoring techniques suggested.

In addition to protocols for various types of pain, it contains protocols for such scenarios as failure or loss of response to opioid therapy. These numerous regimens cannot possibly be memorized, but several interesting concepts are discussed. For example, if skin irritation occurs because of a fentanyl patch, a 2-puff spray with beclomethasone from a metered-dose inhaler before applying the patch will often help. Methadone, which is a  $\mu$  and  $\delta$  agonist with NMDA blocking properties, will often work when a pure  $\mu$  agonist (morphine) has not. Ketamine or dextromethorphan, both with NMDA-blocking properties, may behave in a similar fashion. Also, women with dental pain may respond better to  $\kappa$  agonists such as pentazocine or oxycodone than do men. Another interesting point in the area of opioid tolerance is that the presence of metabolites (eg, morphine-3 or 6-glucuronide) may be accumulated and interfere with analgesia and may even cause hyperalgesia. Excitatory amino acids, the NMDA receptor, nitric oxide, protein kinase C, and other secondary messengers may affect the responsiveness of opioid receptors. And oxycodone and hydromorphone are often good first choices in the elderly because of their hydrophilicity and few active metabolites.

This manual is clearly written by clinicians and for clinicians and has been kept short enough to be of practical use. It is a very good reference with a wealth of information that should be kept in the library of any healthcare professional. He or she will refer to it often.

Dr Earle R. Young, BSc, DDS, BScD, MSc, FADSA  
Associate Professor

Department of Anesthesia, Faculty of Dentistry  
University of Toronto and  
The Wellesley Central Hospital  
Toronto, Ontario, Canada

## **SEDATION: A GUIDE TO PATIENT MANAGEMENT, 4TH EDITION**

*S. F. Malamed*

Mosby, 2003

This book, as described in its preface, is designed for the student of medicine or dentistry on a doctoral, post-doctoral, or continuing-education level. It provides the basic concepts needed to fully understand the drugs and techniques for all aspects of conscious sedation, deep sedation, and general anesthesia, as well as the potential complications and emergencies that may arise. This book is neither a physiology nor a pharmacology text and, as such, is designed to be used in conjunction with appropriate texts and clinical training.

At times the text can appear rather wordy and repetitive. However, when one considers the audience to which it is intended, this is hardly a criticism and is usually of benefit. This softcover book is composed of 8 major sections: “Introduction;” “Spectrum of Pain and Anxiety Control;” “Oral, Rectal and Intramuscular Sedation;” “Inhalation Sedation;” “Intravenous Sedation;” “General Anesthesia;” “Emergency Preparation and Management,” and a final section titled “Special Considerations,” which discusses the pediatric, geriatric, and medically compromised patient and which involves all body systems. These major sections are further divided into 39 chapters, an appendix, and 3 addendums. The sections cover almost 600 individual topics as outlined in the index.

This book relies heavily on Dr Malamed’s extensive experience and insight with respect to all aspects of sedation. For example, an excellent chapter on iatrosedation illustrates this point and is often anecdotal and clearly emphasizes his comment that “an attitude of caring must become an integral part of office philosophy.”

The chapters on nitrous oxide conscious sedation are particularly well illustrated and also contain a nice discussion on respiratory physiology as well as a review of the history of anesthesia and sedation and the invaluable contribution of dentistry, both past and present.

To further illustrate the depth of this book, chapter 9, which discusses sublingual, transdermal, and intranasal sedation, contains an excellent description of various

transdermal delivery systems. Similarly, the chapter on geriatrics is especially timely and well written.

Of course, some points could be argued. For example, Dr Malamed reports that fentanyl should be used with caution in patients taking monoamine oxidase inhibitors within 14 days. This certainly applies to meperidine (Demerol). Also, the cautious use of atropine in asthma is certainly now controversial. The suggested use of Innovar for premedication would often alarm many anesthesiologists! In addition, there is no mention—however controversial—of droperidol causing prolongation of the QT interval. Similarly, many anesthesiologists could argue about the notion that isoflurane “has a pleasant odor” and “is non-irritating.” Also, from my experience, a 10- to 25-mg intravenous dose of ephedrine would generally be excessive.

These are rather minor points in an otherwise excellent book that has frequently been called—and rightfully so—a “gold standard,” especially for the undergraduate dental student. Superbly illustrated, the body of the text is summarized by numerous “boxes.” Each chapter is referenced directly in the body of the text and is followed by an up-to-date list of references, which often contains classic papers and texts as well as up-to-date clinical and scientific papers. The book concludes with an index.

This book clearly emphasizes proper patient evaluation, preparation, and technique regarding the conduct of every aspect of the patient’s overall dental experience. It is written and illustrated in an almost step-by-step fashion. I was pleased to see the word *reserve* used frequently when discussing the patient’s physiology, but the newer term *metabolic equivalents* is not used.

This book should be an integral part of any education program that involves any consideration of patient management in either dentistry or medicine.

Dr Earle R. Young, BSc, DDS, BScD, MSc, FADSA  
Associate Professor  
Department of Anesthesia, Faculty of Dentistry  
University of Toronto and  
The Wellesley Central Hospital  
Toronto, Ontario, Canada

### **MOSBY’S DENTAL DRUG REFERENCE, 6TH EDITION**

T. W. Gage and F. A. Pickett  
Mosby, 2003

Having read this hardcover book from cover to cover, I can only concur with the authors’ description of this excellent text. It is, indeed, a guide and concise drug ref-

erence that allows for rapid identification of drugs that patients may be taking as they present for dental care.

This is not a comprehensive pharmacology text, and it does not make specific or dogmatic recommendations with respect to the selection or prescribing of drugs. More than 1600 drugs are presented alphabetically by generic name. A second index, based on a therapeutic and pharmacology classification, is found at the beginning of the text. This would be particularly helpful in the event that the patient does not recall the name of the medication but knows the condition for which it is taken. In addition, this index also groups drugs by classes. For example, a drug is listed under the general heading of “antihypertensives” and then under the more specific class of “angiotensin-converting enzyme inhibitors.”

Each drug is described under the following headings: “generic name,” “pronunciation of the generic name,” “common brand names” (drugs available in Canada are designated by a maple leaf), “drug class,” “action,” “uses,” “doses and routes of administration,” “side effects/adverse reactions,” “contraindications,” “precautions and identification of pregnancy categories,” “pharmacokinetics,” “drug interactions of concern of dentistry,” and “specific dental considerations.”

By being outlined in the above fashion, this book is amazingly complete. Specific emphasis is placed on drug interactions—especially those of interest to the dental practitioner—and the highlighting of oral side effects. The section on dental considerations will be especially useful in developing comprehensive patient management strategies. These include general considerations and areas to emphasize to both the patient and the patient’s family.

The sixth edition also includes a CD-ROM that features over 100 patient education sheets that can be customized. It also includes 30 oral pathologic conditions that may result from the drugs the patient may be taking and is cross-referenced to the page in the book where the drug is described.

Also included are 2 appendices that contain abbreviations, drugs that cause dry mouth, controlled substances, pregnancy categories, drugs that affect taste, combination products (ie, Percocet-oxycodone plus acetaminophen), dose calculations, herbal and nonherbal remedies, drugs that affect the cytochrome P450 system, prescription examples, and selected references. Located on the inside cover pages are useful tables and a list of drugs for antibiotic prophylaxis.

This book is succinct, comprehensive, and nearly flawlessly written. Although it is called a dental drug reference, this up-to-date book should be in the library—or lab-coat pocket—of any healthcare professional.

Dr Earle R. Young, BSc, DDS, BScD, MSc, FADSA

Associate Professor  
Department of Anesthesia, Faculty of Dentistry  
University of Toronto and  
The Wellesley Central Hospital  
Toronto, Ontario, Canada

**CLINICAL ANESTHESIA PROCEDURES OF  
THE MASSACHUSETTS GENERAL HOSPITAL,  
6TH EDITION**

*W. E. Hurford, ed*

Lippicott Williams and Wilkins, 2002

This 800-page softcover book is the latest edition of a best seller first published over 20 years ago. It can be called a handbook by any definition of the word. It emphasizes the clinical fundamentals involved in the safe administration of anesthesia, including pre-, post-, and perioperative care and patient evaluation as well as most aspects of pain management. Residents, fellows, staff, and alumni of the Department of Anesthesia and Critical Care at the Massachusetts General Hospital contributed to the writing, which complements detailed textbooks and journals but is not intended to replace experienced clinical teaching and actual hands-on experience or to be a substitute for in-depth study. The contents are based on sound physiology and pharmacology principles and contain much background information and theoretical material. Each chapter includes a reading list for those who desire additional information on a particular topic. The body of the text is not directly referenced.

The book is divided into 3 major sections: "Evaluating the Patient Before Anesthesia," "Administration of Anesthesia," and "Perioperative Issues." It concludes with 2 appendices. The first appendix is titled "Supplementary Drugs" under the headings "Indications," "Doses," "Effect," "Clearance," and "Comments," and has several specific tables of commonly used antibiotics. The second appendix contains "Normal Laboratory Values for Blood Chemistry," "Hematology," and "Coagulation Indices." In this latter appendix, some of the units used would not be familiar to all readers.

The 3 major sections have been divided into 39 chapters. These include chapters on evaluating patients who

have "specific consideration with" cardiac, pulmonary, renal, liver, and endocrine disease. Also, chapters address anesthesia for almost every body system and eventuality. Specific chapters of interest to the dental anesthesiologist include "Monitoring," "Intravenous and Inhalation Anesthetics," "Airway Evaluation and Management," "Local Anesthetics," "Intra-anesthetic Problems," "Ambulatory Anesthesia," "Anesthesia Outside the Operating Room," and "Pain." Indeed, every chapter has a wealth of information to offer any healthcare provider.

New and updated chapters from previous editions contain the most recent cardiopulmonary resuscitation guidelines, including advanced cardiac life support, the expanded appendices, ambulatory anesthesia, alternative medicine, minimally invasive surgery, and regional anesthesia.

The contents of this book are comprehensive and produced in a convenient online format that allows quick access to the material. Key terms are highlighted in boldface type. The "single institutions approach" from a renowned center assures consistency, though it certainly does not preach dogmatism. As one example, it suggests that all patients who vomit or regurgitate during anesthesia should be intubated. Of course, this is debatable. Also, the only error of substance that I found was a table that lists the bolus dose of epinephrine for hypotension to be 20–100 mg intravenously. Naturally, this should have been micrograms, and it was corrected in the body of the text.

If a reader were to pick up this book and read it from cover to cover as I did, he or she would discover an absolute wealth of information in every chapter. Most readers would, however, seek out individual chapters for more specific information.

This book is aimed primarily at the resident who is either beginning or well into his or her anesthesia training, but it should find a place in the library of any anesthesia provider.

Dr Earle R. Young, BSc, DDS, BScD, MSc, FADSA  
Associate Professor  
Department of Anesthesia, Faculty of Dentistry  
University of Toronto and  
The Wellesley Central Hospital  
Toronto, Ontario, Canada